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ABSTRACT

This discussion of occupational education suggests that traditional programs, which award status on the basis of time spent, be replaced with programs that define worth in terms of competence. The paper first looks at some of the socioeconomic conditions underscoring the need for a change from traditional educational practices. Next, the time-based approach to education is outlined, tracing the process from collective entry of a diverse group of students into a lock-stepped program to their graduation. Specific problems in this process are highlighted, including its inability to accommodate either fast or slow learners and the waste involved as enrollment slots left vacant by program dropouts remain unfilled. After examining the issue of identifying job titles with job classifications, an alternative view is presented, which considers specific occupations as members of occupational families and argues that much of the knowledge needed to be competent in a specialization is common to the whole occupational family. The paper then outlines a competency-based approach to vocational education, which includes the following concepts: (1) what must be learned is clearly defined as performance objectives; (2) learners get immediate credit for what they know by challenging the performance objectives; (3) the learning process is interruptible; (4) learning is self-paced; and (5) learning becomes increasingly specific as knowledge is accumulated toward a defined level of competence. (AYC)

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VANCOUVER BOARD OF TRADE

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TECHNICAL-VOCATIONAL EDUCATION

COMPETENCY-BASED CORE PROGRAMS

FOR OCCUPATIONAL FAMILIES

JC 840 309

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FEBRUARY 14, 1983

MR. PRESIDENT, MEMBERS AND VISITORS. THANK YOU FOR THIS BRIEF INTERLUDE TOGETHER WHERE SOME THOUGHTS ABOUT SEVERAL MATTERS INCLUDING EDUCATION THAT COULD BE QUITE CONTROVERSIAL MAY BE SHARED, PONDERED AND MEASURED BY EACH OF US IN OUR OWN WAY.

PRIOR TO GETTING INTO THE CORE OF IT ALL, MAY I SAY THAT TECHNICAL-VOCATIONAL EDUCATION IN BRITISH COLUMBIA HAS TAKEN A QUANTUM LEAP FORWARD AS A RESULT OF DECISIONS TAKEN LAST SUMMER BY THE PROVINCIAL GOVERNMENT'S CABINET COMMITTEE ON EMPLOYMENT DEVELOPMENT UNDER THE CHAIRMANSHIP OF THE HONOURABLE GRACE MCCARTHY, DEPUTY PREMIER. THE MINISTER OF EDUCATION, AS A MEMBER OF THAT SENIOR COMMITTEE OF CABINET MINISTERS, FOLLOWED THROUGH TO ENABLE THE IMPLEMENTATION OF TRAC, WHICH STANDS FOR TRAINING ACCESS, IN JANUARY 1983. THE PACIFIC VOCATIONAL INSTITUTE, AS ONE OF MANY OTHERS IN BRITISH COLUMBIA WHO HELPED IMPLEMENT TRAC ONCE THE GOVERNMENT'S DIRECTION AND DECISIONS WERE TAKEN, WILL BE CONTINUING THE DEVELOP-

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MENT WORK THROUGHOUT 1983. AFTER THAT, WITH ALL THAT'S HAPPENING AND ABOUT TO HAPPEN IN OUR GREAT PROVINCE, STUDENTS WILL, AS A RESULT OF BEING ON TRAC NOW, SOON BE ON THE JOB AS WELL.

IT IS NOT EASY TO DISCUSS LEARNING AND THE ACQUISITION OF KNOWLEDGE, WHICH IS A VERY PERSONAL EXPERIENCE THAT USUALLY INVOLVES PARTICIPATION IN POST-SECONDARY EDUCATION INSTITUTIONAL PROGRAMS TO ACHIEVE PERSONAL OBJECTIVES WHERE BOTH MAY BE IN SPLENDID ISOLATION FROM THE ECONOMY. IT BECOMES MUCH EASIER, HOWEVER, TO OVERLOOK WHAT THE ECONOMY MAY HAVE TO OFFER, IF WE BELIEVE THAT MONEY COMES FROM THE GOVERNMENT; JOBS INCLUDING PERPETUAL EMPLOYMENT COME FROM THE GOVERNMENT; GOOD HEALTH COMES FROM THE GOVERNMENT; AND ALL THE THINGS WE NEED, LIKE OR WANT - TO LIVE IN A STYLE TO WHICH WE WISH TO BECOME ACCUSTOMED - ALSO MUST COME FROM THE GOVERNMENT. WHEN IT COMES TO PAYING, WE, AS INDIVIDUALS, OF COURSE, ARE THE GOVERNMENT.

HAVING SAID THAT, YOU RECOGNIZE THAT INDIVIDUALS SUCH AS OURSELVES ARE REALLY PART OF A VAST ECONOMIC AND PEOPLE MOSAIC CALLED "SOCIETY". THAT SOCIETY HAS BECOME OVERBURDENED WITH REDUNDANT AND UNNECESSARY CONTROLS DRIVING US TOWARD A "COLLECTIVE" APPROACH TO NEARLY EVERYTHING AND NOW EXTENDS FAR ENOUGH INTO OUR INDIVIDUAL LIVES TO THREATEN OUR PERSONAL FREEDOMS AND CHOICES. IS IT NOT US, AS INDIVIDUALS, WHO MUST GAIN ACCESS TO THE ECONOMY BY STARTING, OR BEING IN A BUSINESS ENTERPRISE, A PROFESSION, OR BY BEING CAREER COMPETENT AND THEREFORE WORTH EMPLOYING TO MANUFACTURE A PRODUCT, MARKET IT FOR PROFIT OR DELIVER A SERVICE AT AFFORDABLE COST? IF THAT IS SO, HOW CAN THE INDIVIDUAL PREPARE TO BE EMPLOYABLE, GROW IN COMPETENCE DURING ONE'S CAREER, AND COPE THROUGH LIFE WITH BEING EXPERT ON YESTERDAY'S JOBS, A NOVICE ON MANY OF TODAY'S AND PROBABLY AN OUTRIGHT AMATEUR AS FAR AS TOMORROW'S COMPETENCY REQUIREMENTS ARE CONCERNED. IT IS A CHALLENGE TO BE AND REMAIN COMPETENT TO HOLD A JOB, AS WELL AS TO STAY IN BUSINESS IN THE FACE OF THE MANY CHANGING FACTORS AND VARIABLES, MOST OF WHICH WE HAVE NEITHER THE ABILITY TO PREDICT AS PROBABILITIES NOR THE POWER TO CONTROL.

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WE READ AND HEAR MUCH ABOUT TECHNOLOGICAL CHANGE BUT LITTLE ABOUT PEOPLE CHANGE TO MATCH. WE TRY TO IGNORE THE ECONOMICS INVOLVED AND OFTEN SEEK TO PREVENT CHANGE IN THE HOPE IT WILL GO AWAY. IT WON'T. THE MOST ASTUTE LEGISLATION, UNION AGREEMENT OR THE DICTATES OF LEGALISTIC RULINGS BASED ON PAST PRACTICES BY A LABOUR RELATIONS BOARD CANNOT PREVENT CHANGE. THE ECONOMICS OF A LOCAL, NATIONAL AND INTERNATIONAL NATURE SET THE PACE WHETHER WE CHOOSE TO FOLLOW, BE PRODUCTIVELY COMPETITIVE, SLIP BEHIND OR TRY TO LEAD THE WAY. TECHNOLOGICAL CHANGE ON THE JOB OUTPACES EACH OF US AS INDIVIDUALS, AND WHEN THE SIGNALS OF CHANGE ARE RECEIVED "AFTER THE FACT", WE HAD BETTER PARTICIPATE IN QUICK RENEWAL THROUGH USEFUL LEARNING AND THEN KEEP ON LEARNING TO TRY TO BE A STEP AHEAD. IT'S NOT EASY AND IT WILL BECOME INCREASINGLY DIFFICULT IF WE INSIST ON CONCENTRATING ON THE REARVIEW MIRROR RATHER THAN LOOKING AHEAD THROUGH THE WINDSHIELD.

THE PUBLICLY-FUNDED INDUSTRY, BROADLY DESCRIBED AS EDUCATION, NEEDS REGULAR RENEWAL AS DO THE INDIVIDUALS IT STRIVES TO SERVE, TO REMAIN AS A CORNERSTONE FOR A LEARNED SOCIETY THAT CAREFULLY BALANCES

CAREER COMPETENCY WITH THE SOCIAL, CULTURAL AND OTHER IMPORTANT MATTERS OF LIFE AND CITIZENSHIP. NEITHER THE ECONOMY NOR EDUCATION CAN AFFORD THE CREATIVE INERTIA TO WHICH WE HAVE BECOME ACCUSTOMED ANY MORE THAN SOCIETY AS A WHOLE CAN AFFORD TO CONCENTRATE ON IDEOLOGY OR POLITICAL SQUABBLING OVER HOW AND WHAT NEEDS TO BE ACCOMPLISHED. WHILE MANY FORCES WOULD HERD US INTO THE "COLLECTIVE", EACH OF US AS INDIVIDUALS IS RESPONSIBLE FOR BEING MORE KNOWLEDGEABLE, COMPETENT, PRODUCTIVE, POSITIVE AND OPTIMISTIC IN EVERYTHING WE DO AND SUPPORT. IF WE DON'T KNOW HOW, BY TRYING TO FIND OUT, THE SEARCH ITSELF WILL REWARD OUR EFFORTS. IDEALLY, GOOD CHANGE IN THE EDUCATION INDUSTRY SHOULD PROMOTE AND FACILITATE BETTER LEARNING OPPORTUNITIES FOR THE LEARNER RATHER THAN THE INDUSTRY ITSELF, WHICH IS OFTEN WELL IN ARREARS AS FAR AS VISION, LEARNING MATERIALS, EDUCATIONAL PROGRAMS AND DELIVERY METHODS ARE CONCERNED. IN TRADITIONAL EDUCATIONAL PROGRAMS, NEARLY ALL STATUS IS DERIVED ON THE BASIS OF TIME RATHER THAN DEFINED ON THE BASIS OF COMPETENCE. THERE IS MORE THAN A LITTLE TENDENCY TOWARD RIGID ADHERENCE TO DECADES OF TRADITION UNIMPEDED BY PROGRESS, AS WELL AS CHANGE OF A SOCIO-ECONOMIC NATURE.

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THE ECONOMIC MOSAIC CAN'T AND WON'T STAND STILL FOR TRADITION BECAUSE OF PAST PRACTICES AND INDIVIDUALS SEEKING PARTICIPATION IN THE ECONOMY CAN'T STAND STILL FOR LONG EITHER. ALL OF THIS INDICATES SOME NEED FOR EXAMINING WHAT HAS BEEN HAPPENING FOR YOUNG ADULTS AND ADULTS IN THE EDUCATION INDUSTRY FROM THE PERSPECTIVE OF CAREER PREPARATION, GROWTH, ADVANCEMENT AND COMPETENCE.

POST-SECONDARY INSTITUTIONS HAVE TRADITIONALLY STRUCTURED THEIR CAREER EDUCATIONAL PROGRAMS USING **TIME** AS A BASIS FOR ESTABLISHING **WORTH** AS WELL AS CONFERRING **STATUS** ON THOSE WHO COMPLETE AND GRADUATE. AS MORE AND MORE NEEDS TO BE LEARNED, MORE AND MORE **TIME** IS ALLOCATED WHICH, OF COURSE, COSTS EVERYONE MORE AND MORE TAXES AS WELL. THE **TIME** ALWAYS GETS LONGER AS WELL AS FILLED WITH USEFUL ACTIVITIES BUT WITH A PEOPLE INDUSTRY AS LARGE AS THE EDUCATIONAL ENTERPRISE, IT HAS ALWAYS BEEN DIFFICULT TO DEFINE EXACTLY WHAT MUST BE LEARNED FOR COMPETENCE WITHOUT INTERFERING WITH SOMETHING CALLED ACADEMIC FREEDOM. NO DOUBT THERE IS A PLACE FOR ACADEMIC FREEDOM BUT THAT PLACE HASN'T BEEN AGREED UPON OR DEFINED. WE HAVE YET TO

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START CONSIDERING WHAT VOCATIONAL FREEDOM MEANS AS WELL. THE INDUSTRY TRADITIONALLY, WITH NEARLY FULL ACADEMIC AS WELL AS FINANCIAL FREEDOM, HAS CONTINUED, ALMOST IN TOTAL, TO DELIVER ITS EDUCATIONAL PROGRAMS ON THE BASIS OF TIME.

LET'S LOOK AT THE TIME-BASED APPROACH AND SEE HOW IT GROWS. TO SUPPORT THE TIME APROACH, A LEGISLATED MONOPOLY ON THE ISSUANCE OF CREDENTIALS HAS ALSO BEEN ESTABLISHED AND ACCEPTED BY "US", THE INDIVIDUALS OF SOCIETY. THIS FURTHER ENTRENCHED THE MONOPOLY TOWARD HAVING AN INDIRECT BEARING ON THOSE BEING CONSIDERED FOR EMPLOYMENT, WHETHER THE CREDENTIAL IS REMOTELY RELATED TO THE JOB OR NOT. IN TIME-BASED (TRADITIONAL) PROGRAMS:

(1) A "COLLECTIVE OF PEOPLE" ARE REGISTERED TO FORM A CLASS WHICH NORMALLY STARTS AROUND SEPTEMBER AND ENDS AROUND JUNE. ITS SIZE IS CAREFULLY FIXED TO AVOID THE RISK OF A LITTLE OVERWORK FOR ANYONE AND EXACTLY "WHAT MUST BE LEARNED" TO A SPECIFIC LEVEL OF COMPETENCE OR DEMONSTRATED MASTERY IS SELDOM IF EVER CLEARLY ESTABLISHED IN A SYSTEMATIC MANNER.

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(2) IT IS ASSUMED, INCORRECTLY, FROM THE FIRST DAY IN CLASS THAT EACH INDIVIDUAL HAS EXACTLY THE SAME AMOUNT OF KNOWLEDGE, HAS THE SAME INTERESTS AND LEARNS AT EXACTLY THE SAME RATE AND RETAINS WHAT IS FIRST LEARNED FOR EXACTLY THE SAME TIME SPAN.

(3) TIME-BASED PROGRAMING DEPENDS LARGELY ON TEACHING AND TEACHERS WHICH OFTEN HAS ONLY A LIMITED RELATIONSHIP TO LEARNERS AND LEARNING.

(4) THE "COLLECTIVE OF PEOPLE" OR CLASS CONSISTING OF INDIVIDUALS BEGIN TO DESPAIR BECAUSE SOME LEARN FASTER AND KNOW MORE TO BEGIN WITH WHILE OTHERS CAN'T KEEP UP WITH THE LOCK-STEP TIMETABLE, ESTABLISHED FOR REASONS OF ORDER AND CONFORMITY WITH THE WORK SCHEDULES OF STAFF.

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(5) THE LEARNERS WHO FIND DIFFICULTY BECAUSE IT ALL MOVES TOO SLOW OR TOO FAST BECOME FRUSTRATED AND THE TEACHERS SEEK TO COMPROMISE AND ACCOMMODATE THE VARIOUS DEMONSTRATED ABILITY RATES AND LEVELS OF INDIVIDUAL STUDENTS. THE FAST LEARNERS MAY START TO SKIP CLASSES, KNOWING THEY CAN EASILY CATCH UP, AND THE OFTEN MORE METHODICAL LEARNERS PROCEEDING AT A SLOWER RATE GET WORSENING GRADES IN THEIR EXAMINATIONS BECAUSE THEY DIDN'T GET THROUGH WITH THE QUANTITATIVE ASPECTS BUT MAY HAVE EXCELLED ON A QUALITATIVE BASIS. THOSE EMPLOYED IN THE EDUCATION INDUSTRY THEN BECOME EQUALLY FRUSTRATED AND CLAMOR FOR LESS **CONTACT TIME** WITH LEARNERS TO IMPROVE THE QUALITY OF EDUCATION. USING THAT THESIS, EXCELLENCE COULD BE ACHIEVED IF THERE WERE NO STUDENT CONTACT AT ALL.

(6) ALL ARE ENCOURAGED TO HANG IN AND SERVE THEIR TIME BECAUSE IF THEY "DROP OUT" ALL WILL BE LOST BECAUSE THEY CANNOT BE GIVEN CREDIT FOR THE PARTS THEY MANAGED TO LEARN BECAUSE THOSE PARTS CAN'T BE EASILY IDENTIFIED.

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(7) UPON COMPLETION OF THE SET TIME, GRADUATION DAY ARRIVES IN JUNE AND THOSE WHO ENDURED THE TESTS OF TIME ARE REWARDED BY BEING PROPELLED INTO THE ECONOMY TO LOOK FOR A JOB AT EXACTLY THE SAME TIME AND THE EDUCATION INDUSTRY PEOPLE LEAVE TO GO ON VACATION. NEARLY ALL WERE GRADUATED INTO UNEMPLOYMENT BECAUSE THERE ISN'T AN ECONOMY IN THE WORLD WHERE SUCH LARGE NUMBERS CAN BE ABSORBED AT ONCE. EACH BRIGHT-EYED GRADUATE LEFT THINKING THE WORLD OF WORK WAS OUT THERE WAITING FOR THEM BECAUSE THEY COMPLETED THE TESTS OF TIME AND GOT A CREDENTIAL TO PROVE IT.

(8) THE QUALITY OF THE LEARNING EXPERIENCES FOR THE LEARNERS WAS JUST ABOUT AS DIFFICULT TO MEASURE WITH ANY DEGREE OF ACCURACY AS WAS THE TEACHING ABILITY OF THE TEACHERS BECAUSE WHAT MUST BE LEARNED, PROBABLY WAS NOT CLEARLY DEFINED FROM THE OUTSET.

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THERE ARE, OF COURSE, MANY OVER-SIMPLIFICATIONS, BUT LET'S LOOK AT SOME OF THE OTHER FACTORS AND GIVE THOUGHT TO THEM.

(A) AS LEARNERS "DROP OUT" THEY LEAVE EMPTY SPACES THAT CAN'T BE FILLED WITH OTHER LEARNERS BECAUSE THE TEACHING AND TEACHERS HAVE PROCEEDED LOCK-STEP ON THE BASIS OF TIME -- TIME OF THE DAY, MONTH AND YEAR WITHIN THE TIMETABLE.

(B) THE BUILDINGS, LABORATORIES AND EQUIPMENT, THAT MUST BE PROVIDED TO ACCOMMODATE THE MAXIMUM NUMBER OF LEARNERS WHEN THE CLASS STARTS, NOW BECOME OCCUPIED FOR PART OF THE YEAR WITH LESS THAN A MAXIMUM NUMBER BECAUSE OF DROP-OUTS. THIS INCREASES UNIT COSTS TO PROVIDE FOR THOSE WHO REMAIN. HIGHER UNIT COSTS FOR TWO-THIRDS OF THE YEAR COUPLED WITH CONSTANTLY HIGH FIXED COSTS ALL OF THE YEAR, WITH THE FACILITIES FOR ALL PRACTICAL PURPOSES, COMPLETELY EMPTY FOR THREE TO FOUR MONTHS EACH YEAR, BECOMES A VERY EXPENSIVE PROPOSITION DUE TO UNDERUTILIZATION.

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(C) THE OUTCRY FROM THE EDUCATION INDUSTRY FOR MORE MONEY CONTINUES TO ESCALATE LARGELY BECAUSE TIME IS THE TRADITIONAL BASIS FOR EDUCATIONAL PROGRAMS DELIVERY AND WASTED TIME AS WELL AS DOWN TIME HAVE BECOME SIGNIFICANT GENERATORS OF EVER-INCREASING COSTS. REACTION FROM THE TAXPAYERS, WHO HAVE MORE THAN A FEW DIFFICULTIES OF THEIR OWN, HAS SO FAR RESULTED IN CONCENTRATION ON SPENDING AND MONEY. MORE SOPHISTICATED COMPUTERIZED FINANCIAL SYSTEMS OF ACCOUNTING, AUDITING AND CONTROL HAVE SPAWNED A WHOLE NEW INDUSTRY AND RELATED COSTS FOR NON-LEARNING ACTIVITIES. NOW WE CAN ACCOUNT FOR EVERY PENNY SPENT. DID WE FORGET LEARNING AND LEARNERS AS WELL AS EDUCATIONAL AUDIT AND ACCOUNTABILITY? WE PROBABLY CONCENTRATED SO MUCH ON ACCOUNTING FOR MONEY, THAT WE LOST SIGHT OF WHAT IT WAS REALLY INTENDED FOR IN THE FIRST PLACE -- BETTER LEARNING EXPERIENCES FOR STUDENTS. MONEY BY ITSELF CAN ONLY PRODUCE INVESTMENT INCOME -- BETTER EDUCATION CAN ONLY COME FROM THE FOLKS IN THE EDUCATION INDUSTRY IF THEY THEMSELVES KNOW HOW TO DELIVER.

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THE ARCHAIC WHIRLIGIG OF ACTION, REACTION, RHETORIC AND DEBATE OVER MORE MONEY SHOULD BE REPLACED WITH SELF-EXAMINATION AND LEADERSHIP FOR SELF-RENEWAL IN THE INTERESTS OF THE **LEARNERS** RATHER THAN THE SYSTEM ITSELF. THIS RENEWAL PROCESS CAN ONLY OCCUR WHERE FEAR IS REPLACED BY A POSITIVE CLIMATE COUPLED WITH DETERMINATION ON THE PART OF GOOD PEOPLE TO PLACE **LEARNING** WELL AHEAD OF **TEACHING** AND **EMPLOYMENT** IN EVERYTHING WE ASPIRE TO IMPROVE.

TECHNICAL-VOCATIONAL EDUCATION HAS ALSO TRADITIONALLY BEEN TIME-BASED AND LOCK-STEP. PROGRAMS WERE ALWAYS ESTABLISHED ON THE BASIS OF LENGTH SUCH AS 5 MONTHS, 10 MONTHS, 1 YEAR AND SO FORTH. COMPLETION OF TWO, 1-YEAR COURSES NEVER RECEIVED THE SAME RECOGNITION OF WORTH OR STATUS AS ONE, 2-YEAR COURSE. ADDITIONALLY, THE PROGRAMS USUALLY WERE TO PREPARE FOR A SPECIFIC AND DISCRETE JOB TITLE SUCH AS ELECTRICIAN, INSTRUMENT MECHANIC, MACHINIST, PIPEFITTER, AIRCRAFT MAINTENANCE MECHANIC AND SO ON. THERE WAS LITTLE RECOGNITION THAT JOB TITLES WERE ALSO JOB CLASSIFICATIONS AND SOON IT ALL BECAME A LABOUR AND MANAGEMENT MATTER. WITHOUT DEFINING JUST WHO REPRESENTS EITHER MANAGEMENT OR LABOUR, NEITHER OF WHOM ARE

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THE GUARDIANS OF SOCIETY FOR STUDENTS, RETIRED PEOPLE OR OTHER INDIVIDUALS IN THE PEOPLE MOSAIC, A WHOLE NEW CONTROL-ORIENTED INDUSTRY BASED ON FORECASTING SUPPLY/DEMAND OF JOB TITLE SKILLS WAS FORMED. HOWEVER, THAT INDUSTRY ALSO BECAME THE ROOT CAUSE OF ENORMOUS DEFICIENCIES IN THE NATIONAL TALENT POOL FOR ALL KINDS OF NON-JOB TITLE CLASSIFICATIONS. WE THEN BECAME DEPENDENT ON IMMIGRATION BECAUSE CANADIANS COULDN'T GAIN ACCESS TO FLEXIBLE AND PROGRESSIVE LEARNING OPPORTUNITIES IF THE FORECASTERS COULDN'T SEE PAST THE CONTROL OF TRAINING FOR DISCRETE JOB TITLES. THEY COULDN'T AND STILL CAN'T.

WE KNOW THERE ARE ABOUT 45,000 IDENTIFIABLE OCCUPATIONS IN OUR SOCIETY, WITH 300 BEING THE MOST COMMON. ALL REQUIRE COMPLETION OF VARIOUS FORMS OF FORMAL LEARNING, COUPLED WITH GROWTH EXPERIENCE ON THE JOB. THE JOBS THAT IN THE PAST WERE 90% DOING AND 10% KNOWING HAVE CHANGED TO 90% KNOWING AND 10% DOING. THERE AREN'T ALWAYS ENOUGH JOBS, AS WE WELL KNOW. THAT, OF COURSE, IS NO REASON TO KEEP PEOPLE FROM LEARNING. HOW THEN CAN LEARNING BE FACILITATED, TAKING

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MANY FACTORS INCLUDING THE ECONOMY INTO ACCOUNT? IT SEEMS PRACTICAL TO STRUCTURE AND ORGANIZE LEARNING FROM THE LEARNERS' PERSPECTIVE AS FOLLOWS:

(1) GROUP THE MOST COMMONLY KNOWN OCCUPATIONS INTO OCCUPATIONAL FAMILIES SUCH AS MECHANICAL, ELECTRICAL, METAL FABRICATION AND SO FORTH. THERE ARE PERHAPS A DOZEN OR MORE OF SUCH OCCUPATIONAL FAMILIES.

(2) EACH OCCUPATIONAL FAMILY CONTAINS MANY SPECIALIZED OCCUPATIONS. MUCH OF THE KNOWLEDGE NEEDED TO BE COMPETENT IN A SPECIALIZATION IS COMMON TO THE WHOLE FAMILY. A CORE PROGRAM OF COMMON KNOWLEDGE IS THEREFORE POSSIBLE TO DEVELOP FOR THE WHOLE FAMILY.

(3) THE KNOWLEDGE AND COMPETENCE NEEDED FOR ANY SINGLE SPECIALIZATION IS ADDITIONAL TO THAT CONTAINED IN THE OCCUPATIONAL FAMILY CORE.

(4) TAKING ALL OF THIS A STEP FURTHER, WE FIND THAT MANY OCCUPATIONAL FAMILIES ALSO HAVE SOME KNOWLEDGE THAT IS COMMON TO ONE OR MORE. THAT ALLOWS DEVELOPMENT OF A COMMON CORE TO COVER THE BROAD BASE BEGINNING LEVEL OF THE LEARNING PROCESS.

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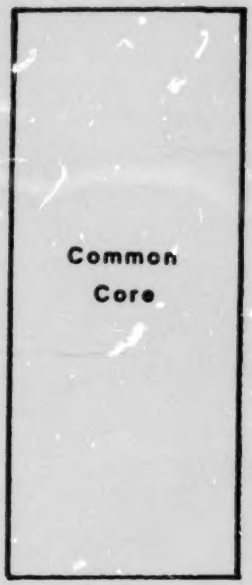
NOW LETS REVIEW THE CONCEPT

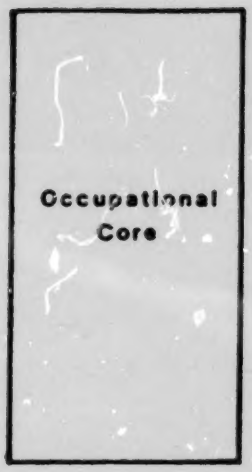
(1) Common Core Learning

KNOWLEDGE THAT IS COMMON TO MORE THAN ONE OCCUPATIONAL FAMILY.



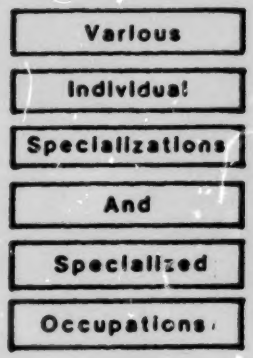
(2) Occupational (Family) Core

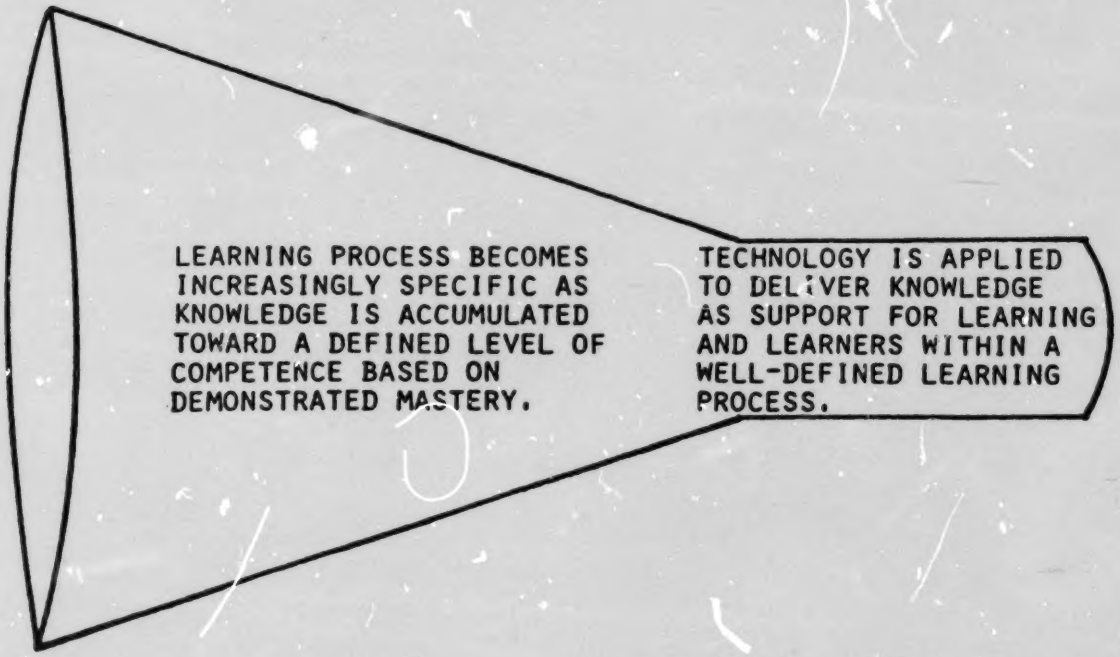
KNOWLEDGE THAT IS COMMON TO A WHOLE FAMILY OF SPECIALIZATIONS.



(3) Specializations

KNOWLEDGE THAT IS SPECIFIC AND RELATED MAINLY TO A SPECIFIC OCCUPATION. A FAMILY CORE MAY PROVIDE KNOWLEDGE AND LEARNING FOR 12 - 35 SPECIALIZATIONS.




LEARNING PROCESS BECOMES INCREASINGLY SPECIFIC AS KNOWLEDGE IS ACCUMULATED TOWARD A DEFINED LEVEL OF COMPETENCE BASED ON DEMONSTRATED MASTERY.
TECHNOLOGY IS APPLIED TO DELIVER KNOWLEDGE AS SUPPORT FOR LEARNING AND LEARNERS WITHIN A WELL-DEFINED LEARNING PROCESS.

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NOW THAT THE CONCEPT IS CLEAR, HOW CAN "WE", THE INDIVIDUAL LEARNERS, EXPECT TO PROCEED THROUGH A LEARNING PROCESS ORGANIZED IN THIS MANNER? GOOD QUESTION!

(1) THE LEARNING EXPERIENCES IN COMMON CORE AND OCCUPATIONAL CORE ARE DIVIDED INTO MODULES OR PACKAGES. EACH MODULE IS DIVIDED INTO PERFORMANCE OBJECTIVES. SOME MODULES HAVE SEVERAL P.O.s, WHILE OTHERS HAVE FEWER. EACH P.O. MUST BE MASTERED. THE LEARNING GUIDE MATERIALS CONTAIN THE PERFORMANCE OBJECTIVE AND PROVIDE FOR EXACTLY WHAT MUST BE LEARNED AND UNDERSTOOD. WHEN YOU HAVE LEARNED, YOU CAN APPLY TO CHALLENGE THE P.O. YOU ARE THEN MOVED THROUGH A CONTROL CENTRE TO THE CHALLENGE CENTRE. HERE YOUR KNOWLEDGE MUST BE SUCH THAT YOU CAN DEMONSTRATE MASTERY OF WHAT YOU WERE REQUIRED TO LEARN AS WELL AS THE ABILITY TO APPLY THE KNOWLEDGE TO A TASK OR TECHNICAL PROBLEM. THERE ARE NO PERCENTAGES, GRADES OR OTHER DEGREES OF COMPETENCE EXCEPT MASTERY WHICH, WHEN DEMONSTRATED MASTERY HAS BEEN ACHIEVED, YOU MOVE ON TO THE NEXT PERFORMANCE OBJECTIVE.

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(2) LEARNERS, WHO CHALLENGE A P.O. ON TWO OCCASIONS AND FAIL TO DEMONSTRATE MASTERY, CANNOT CHALLENGE AGAIN UNTIL LEARNING RESOURCES STAFF CERTIFY THAT ADDITIONAL INSTRUCTION HAS BEEN GIVEN.

(3) THE NUMBER OF PERFORMANCE OBJECTIVES THAT MUST BE MASTERED FOR COMPETENCE BECOME PROGRESSIVELY FEWER STARTING WITH THE LARGEST NUMBER AT THE BROADLY BASED LEVEL OF COMMON CORE. COMMON CORE IS ANALOGOUS TO THE LARGE PART OF A FUNNEL WITH THE OUTLET SEEN AS YOUR CHOSEN SPECIALIZATION.

(4) THE WHOLE PROCESS OF LEARNING IS INDEPENDENT OF TIME. TIME IS REPLACED BY COMPETENCE (DEMONSTRATED MASTERY). LEARNERS MAY CHALLENGE PERFORMANCE OBJECTIVES ON ADMISSION TO OBTAIN INSTANT CREDIT FOR THE KNOWLEDGE THEY ALREADY HAVE ACQUIRED. SOME LEARNERS MOVE WELL INTO THE PROCESS ALMOST IMMEDIATELY WHILE OTHERS NEED TO COMPLETE ALL LEARNING EXPERIENCES.

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NOW WE KNOW AND NEED TO KNOW THE FOLLOWING CONCEPTS ABOUT COMPETENCY-BASED CORE PROGRAMS FOR OCCUPATIONAL FAMILIES:

(1) WHAT MUST BE LEARNED IS DEFINED FOR ALL TO SEE IN THE FORM OF PERFORMANCE OBJECTIVES. THESE MUST BE MASTERED FOR COMPETENCE. DOING SO IS INDEPENDENT OF TIME.

(2) TRAC STANDS FOR TRAINING ACCESS. THAT MEANS IT WILL SOON BE POSSIBLE TO GET INTO TRAINING WITHOUT LONG WAIT-LISTS.

(3) THE LEARNERS GET IMMEDIATE CREDIT FOR WHAT THEY ALREADY KNOW AND CAN DEMONSTRATE THROUGH CHALLENGE.

(4) THERE ARE NO DROP-OUTS WITHOUT A CREDIT RECORD OF WHAT WAS MASTERED. THE LEARNING PROCESS IS INTERRUPTIBLE TO GO TO WORK OR CAN BE CONTINUED WHILE WORKING.

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(5) WELL-MOTIVATED LEARNERS CAN SPEND MANY HOURS PER DAY TO COMPLETE SOONER OR TAKE IT MORE SLOWLY DEPENDING UPON WHETHER THEY HAVE PART-TIME JOBS OR PERSONAL MATTERS REQUIRING ATTENTION.

(6) PROVINCIAL STANDARD LEARNING MATERIALS ENSURE ACCURATE TRANSFERABILITY RECORDS CREDITED TO THE LEARNER IN MOST PARTS OF THE PROVINCE. "NON-CREDIT" LEARNING DISAPPEARS.

(7) AS FAST AS ONE LEARNER MOVES A STEP AHEAD, ANOTHER FILLS THE SPACE - KEEPING A FULL CELL OF PEOPLE, THEREBY MAXIMIZING THE UTILIZATION OF COSTLY STAFF, FACILITIES AND EQUIPMENT.

(8) AS CHANGES OCCUR IN BUSINESS AND INDUSTRY, OUT OF DATE PERFORMANCE OBJECTIVES ARE REPLACED, KEEPING THE LEARNING PROCESS UP TO DATE.

(9) IF THERE ARE NO JOBS, TIME CAN BE SPENT TO LEARN TO HIGHER LEVELS OF COMPETENCY RATHER THAN WASTING THE TIME OF ONE'S LIFE.

(10) THE INDIVIDUAL MAKES A CHOICE AS TO HOW FAR TO PROCEED CONSISTENT WITH A LEVEL BEYOND WHICH SOME BECOME AWARE THE LEARNING LEVEL BECOMES TOO DIFFICULT. FROM THE PERSPECTIVE OF THE LEARNER, THE ROAD AHEAD CONCENTRATES ON OPEN-ENDED MASTERY RATHER THAN DEAD-ENDED MISERY.

(11) THERE ARE NO REPORT CARDS OR LETTER GRADES. THE LEARNER IS EITHER COMPETENT OR NOT. THIS IS ANALOGOUS TO EITHER BEING CAPABLE OF "FLYING THE AIRPLANE OR NOT".

(12) LEARNING OCCURS IN A POSITIVE FRIENDLY ATMOSPHERE WHERE STUDENTS HELP EACH OTHER, INSTRUCTORS TRAVEL AMONGST STUDENTS, SMALL LEARNING CENTRES BRING SMALL GROUPS TOGETHER, INSTRUCTIONAL SUPPORT IS AVAILABLE, THE LEARNING PACKAGES CONTAIN WHAT YOU NEED TO KNOW AND MANY CHALLENGES MADE A STEP AT A TIME REPLACE THE "BIG" SUBJECTIVE EXAMINATIONS THAT WOULD OTHERWISE STRIKE FEAR INTO THE MINDS OF STUDENTS. INDIVIDUAL CHALLENGES ESTABLISH COMPETENCE RATHER THAN DEPENDENCE UPON MAJOR EXAMINATIONS.

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IN SUMMARY, LET ME TRY TO CAPTURE WHAT HAS BEEN SAID IN INDUSTRY JARGON WHICH SHOULD BE IMMEDIATELY FORGOTTEN LEST WE BECOME TOTALLY CONFUSED BEFORE CONCLUDING OUR TIME TOGETHER. HERE GOES:

NOW THAT WE KNOW ABOUT CORE PROGRAMS FOR OCCUPATIONAL FAMILIES THAT ESTABLISH A DEFINED LEVEL OF COMPETENCE THROUGH INDIVIDUALIZED LEARNING EXPERIENCES WHILE PROCEEDING THROUGH TO A SPECIALIZATION WHICH IS A DISCRETE OR SINGULAR OCCUPATION ARRIVED AT THROUGH A SELF-PACED LEARNING SYSTEM THAT IS FLEXIBLE AND INDEPENDENT OF TIME BUT FULLY INTERRUPTIBLE, LADDERED AND OPEN-ENDED FROM A STUDENT LEARNER'S PERSPECTIVE TAKING CARE TO AVOID DUPLICATION WHILE FACILITATING PERSONAL ACCESS TO LEARNING SO I CAN PREPARE TO EARN, AS WELL AS MAKING IT INFINITELY POSSIBLE TO LEARN WHILE I EARN BECAUSE DEMONSTRATED MASTERY OF PERFORMANCE OBJECTIVES

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CONTAINED IN MODULES BECOME PROGRESSIVELY FEWER IN NUMBER IF I CAN SUCCESSFULLY CHALLENGE SEVERAL WHEN I START AND ALSO BECAUSE AS I GET CLOSER TO THE SPECIALIZATIONS END, THEY DECREASE IN NUMBER TOWARD THAT END AND KNOWING THAT AS FAST AS I MOVE AHEAD, ANOTHER STUDENT WILL FILL THE SPACE BEHIND, LEAVING ME NOWHERE TO GO BUT ONWARD TO MY GOAL OF COMPETENCE, AND ALL OF THIS MAKES ME AS A LEARNER FEEL GOOD BECAUSE I KNOW WHERE I'M GOING AND THERE IS LITTLE NEED FOR COUNSELLING BECAUSE I KNEW MY FAMILY WHEN I STARTED THIS THING AND IF I DIDN'T KNOW EXACTLY, ONCE I WAS ACCEPTED INTO THE FAMILY, I COULD TELL BY MYSELF EXACTLY FROM MY FAMILY LEARNING EXPERIENCES THAT I WAS ON TRAC, BUT IF I HADN'T BEEN SURE OF THAT, I COULD EASILY PULL A QUICK SWITCH TO THE SPECIALIZED OCCUPATION I FOUND OUT WAS BEST FOR ME, AND SO I WILL COME OUT OF THIS AS COMPETENT AND PRODUCTIVELY EMPLOYABLE FOR ANYONE, WHO HAS A PLACE IN THE REAL WORLD

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FOR A BRIGHT-EYED BUSHY TAILED PERSON WHO IS WILLING AND EAGER TO HELP MAKE OUR ECONOMY RECOVER AND PROSPER SO I CAN GET PAID FOR WHAT I KNOW, CAN DO, AND HAVE MASTERED, THEREBY ENABLING ME TO DO BETTER AND PUT MORE INTO THE COMPANY THAN I HAVE ANY RIGHT TO TRY TO TAKE OUT LABOUR OR MANAGEMENT NOTWITHSTANDING -- AND HAVING SAID ALL THAT, EVERYONE INCLUDING ALICE LIVED HAPPILY EVER AFTER.

THANK YOU VERY MUCH.

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